





M3/B16 RA 81/8

IMPACT OF THE BOSTON CAPITAL CONSTRUCTION FREEZE ON JOBS AND TAX REVENUE

I

Alexander Ganz, Gregory Perkins and Frances Larson

Boston Redevelopment Authority
Research Department

April 1981

Kevin H. White, Mayor City of Boston

Robert J. Ryan, Director Boston Redevelopment Authority

Alexander Ganz Research Director

Boston Redevelopment Authority
Board of Directors
Robert L. Farrell, Chairman
Joseph J. Walsh, Vice-Chairman
James K. Flaherty, Treasurer
Clarence Jones, Member
William A. McDermott, Jr., Member
Kane Simonian, Secretary

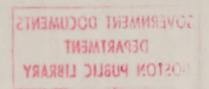


Table of Contents

		Page
ı.	SUMMARY	1
II.	BOSTON'S DYNAMO ROLE	3
III.	INVESTMENT UNDERWAY AND PLANNED IN BOSTON	11
IV.	PROJECTED TAX YIELD TO BOSTON AND THE STATE FROM DEVELOPMENT PROJECTS UNDERWAY AND PLANNED	23

Gw Doc place on's

I. SUMMARY

On March 28, 1981, Moody's Investors' Service, a credit rating agency, suspended its rating for Boston municipal bonds because of the shadow cast on the City's ability to repay principal and interest in view of the debilitating potential of Proposition 2½ on Boston's tax revenue base.

Capital construction had been frozen and no new bonds had been issued since the adoption of Proposition 2½ on Election Day in November 1980. The freeze could continue as long as Boston's revenue base remains inadequate to fund needs for both current operations and debt service for new public investment.

A freeze on Boston public capital construction would have a devastating effect on the outlook for job creation and growth in City and State revenue. To estimate the jobs and tax revenue that would be foregone, the report which follows presents detailed documentation on new investment (public and private) underway and planned, the role of Boston public capital construction, the construction jobs and the permanent jobs that would be created, and the City and State tax revenue that would be generated. In summary, more than \$5 billion of investment, public and private, is currently underway and planned, in Boston, with a completion horizon extending to 1985. City public investment requirements for basic infrastructure (water, sewer, streets and lights, etc.), for new structures and facilities, and for site specific public improvements, are needed to make the planned private investment and the programmed Federal and State investment go. The estimated City capital construction cost is \$340 million, over this period, representing a very favorable City investment leverage ratio of 15 (private and Federal and State investment) to 1 (City public investment).

The result of the investment underway and planned, by the end of the construction period, would be 44,000 new permanent jobs and an annual additional net return of upwards of \$72 million in new State revenue and \$35 million in new City revenue. In the interim, there would be more than 84,000 man-years of construction work, equivalent to 17,000 full-time equivalent construction jobs a year over a five-year period. Most of these prospects for new jobs and tax revenue would be foregone if Boston's capital construction freeze were to continue for any substantial period of time in the absence of a new revenue source to compensate for Proposition 2½.

II. BOSTON'S DYNAMO ROLE

Boston is enjoying a renaissance, and its well-being gives sustenance to the economy and treasury of the State. There has been an overall improvement in the City as a place to live, and the Boston economy is in the midst of a boom in employment and investment. The significance for the State lies in Boston's dynamo role. Though Boston has but ten percent of the population of the State, it makes up 17 percent of State revenue generated, 19 percent of the jobs, and 21 percent of the production of goods and services. See Tables 1, 2, and 3. Boston accounts for 35 percent of the jobs of the metro area, which, in turn, generates 30 percent of the employment total in the New England Region. See Chart 1. Boston has one of the largest ratios of jobs to population of the nation's large cities. See Chart 2.

The City's public capital construction program has given Boston a substantially new public infrastructure over the last dozen years, with the investment of more than \$750 million. 1) This has been instrumental in facilitating \$1.5 billion of Federal and State infrastructure outlays. 2) Responding to the public investment, the planning they reflected, and the prospects they signified, an estimated \$12 billion of private investment helped transform and modernize the economy of the City. Fifty thousand jobs have been created since 1976. See Table 4. The City's economy is generating \$650 million of State revenue a year, accounting for one-sixth of the total received, and is vital to the health of the State.

Boston Redevelopment Authority, A Decade of Development in Boston;
Projects Completed 1968-78.

The Urban Institute, The Future of Boston's Capital Plant, 1981.

STATE REVENUE RAISED IN BOSTON FISCAL YEAR 1980 (Millions of Dollars)

		State Tax	Share Raised	in Boston
		Revenue	Percent	Amount
I.	State Individual, Corporate, & Bank Income Tax1)	\$2,369		
	City Share of State Gross Product 2)		21.2%	
	Estimated State Income Tax Revenue Raised in Boston			\$502.2
II.	State Sales & Related Taxes Raised 1)	\$1,335		
	City Share of Sales Tax 3)		10.2%	
	Estimated State Sales & Related Taxes Raised in Boston			\$136.2
III.	State Miscellaneous Taxed Raised 1)	\$126		
	City Share of Miscellaneous Taxes ⁴⁾		10%	
	Estimated State Miscellaneous Taxes Raised in Boston			\$12.6
IV.	Total State Revenue ¹⁾	\$3,830		
	City Share of State Revenue Raised 5)		17%	
	Estimated State Revenue Raised in Boston 5)			\$651
	Sources: 1)			

Sources: 1) Commonwealth of Massachusetts, Office of the Comptroller,
Massachusetts Condensed Annual Report, FY 1980.

²⁾ See Table 3.

³⁾ U.S. Bureau of the Census, <u>Massachusetts</u>, 1977 Census of <u>Retail Trade</u>

⁴⁾ Estimated.

⁵⁾ Estimated, BRA Research Department.

Table 2
BOSTON'S SHARE OF STATE EMPLOYMENT
1979

Name and	Boston * (Suffolk County)	Massachusetts	As a Percent of Massachusetts
Total	553,271	2,839,820	19.5% *
Farm	-	10,100	0.0
Agriculture & Mining	621	10,849	5.7
Construction	10,291	76,772	13.4
Manufacturing	57,254	670,361	8.5
T.C.P.U. 1)	35,847	120,998	29.6
Trade	92,298	568,665	16.2
F.I.R.E. 2)	66,242	150,050	44.1
Services	186,589	639,428	29.2
Government	92,164	428,367	21.5
Proprietors	11,965	164,230	7.3

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System.

^{*} Boston makes up 96 percent of Suffolk County and 18.7 percent of total employment in Massachusetts.

¹⁾ Transportation, Communication, and Public Utilities

²⁾ Finance, Insurance and Real Estate.

Table 3

BOSTON'S SHARE OF THE GROSS PRODUCT* OF THE COMMONWEALTH OF MASSACHUSETTS

	Mass	achusetts	Bosto		
		Dollars of		Dollars of	Boston
	Current	Constant	Current	Constant	As a
	Year	Value at	Year	Value at	Percent
	Dollars	1980 Prices	Dollars	1980 Prices	Of State
	(In i	millions)	(In m	millions)	
1950	\$9,179	\$30,841	\$2,437	\$8,188	27%
1960	15,646	40,836	3,781	9,868	24
1970	29,116	57,067	6,833	13,392	23
1980	64,301	64,301	13,632	13,632	21

(Continued)

Sources and Methodology

Gross product is the total value of goods and services produced within an area, or formally defined as "the aggregate earnings of labor and property less the intermediate products purchased." This measure provides a good view of the productive activity of the economic areas.

A detailed series, gross national product, is compiled regularly for the United States economy. For regions and states, gross product is derived by using the "Kendrick-Jaycox" method which relates the components of gross product to income received (earned income) by detailed industry level, utilizing ratios for the U.S. economy.1) The Kendrick-Jaycox method is a widely used means of estimating gross state product for analysis of regional and state economic trends.

The Federal Reserve Bank of Boston uses the Kendrick-Jaycox method to derive an historical series of New England Gross Regional Product and Gross State Product for each state.²⁾ The Massachusetts series for 1950-1978, prepared by the Federal Reserve Bank of Boston, is presented in the accompanying table. For 1979 and 1980 Massachusetts Gross Product is derived by using the direct relationship between state earned income and state gross product for the most recent year of the FRB series, 1978.³⁾

Boston Gross City Product is calculated utilizing the Massachusetts state gross product series, the state earned income series and the Suffolk County earned income series, adjusted for the four percent of the county economy outside of the City of Boston. This procedure is used for the 1950-1978 years. Gross City Product for 1979 and 1980 is then estimated from the State Gross Product series for those two years according to the ratio of city to state gross product in 1978 indexed for changes in the ratios of employment in Boston and in the state in 1978, 1979 and 1980. 4)

Two other aspects of the estimates for 1980 should be noted. Both State and City Gross Product series for 1980 are based on the second quarter average earned income series from the Bureau of Economic Analysis, the latest available information. A review of past quarterly series reveals that second quarter information understates annual average earned income. Secondly, the constant dollar 1980 series is based upon the implicit price deflator of Gross National Product for June, 1980.5)

Grace F. On, New England Economic Indicators, April 1980, "Gross State Product; New England," Federal Reserve Bank of Boston.

John H. Kendrick and C. Milton Jaycox, Southern Economic Journal,
"The Concept and Estimation of Gross State Product," Vol.32, No.2
October 1965, pp.153-168.

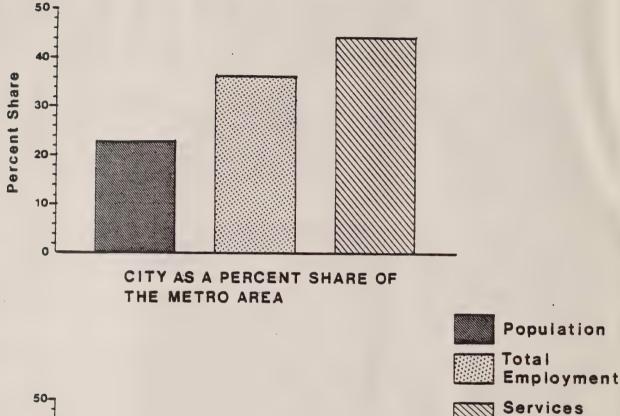
U.S. Department of Commerce, Bureau of Economic Analysis, "Major Sources of Personal Income," Massachusetts, October 1980 and Suffolk County,

April 1980.

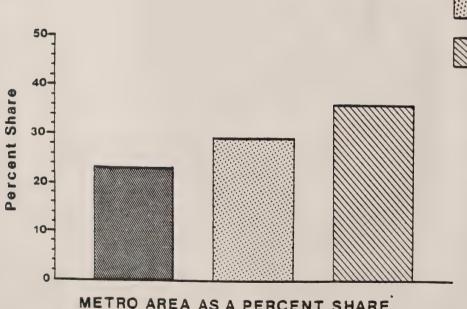
Massachustts Division of Employment Security, January 1981, ES-202 Report
U.S. Department of Commerce, Table 19, Survey of Current Business,
November 1980, and The Economic Report of the President, 1980.

Chart 1

BOSTON'S ROLE IN THE METRO AREA AND NEW ENGLAND REGION



Employment

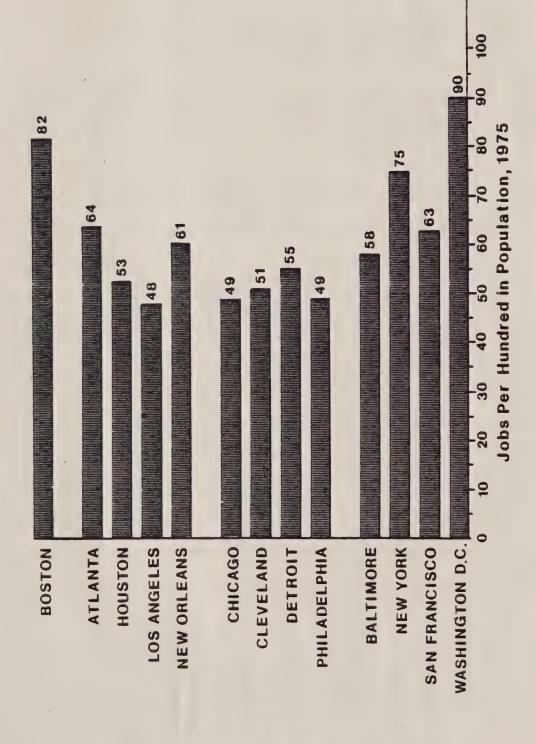


METRO AREA AS A PERCENT SHARE OF THE NEW ENGLAND REGION

Source: B.R.A., U.S. Census Bureau, U.S. Bureau of Labor Statistics, Mass. State Census, Mass. D.E.S

COMPARISONS OF JOB - POPULATION RATIOS, BOSTON AND OTHER MAJOR CITIES

BOSTON AS DYNAMO



Source: B.R.A. Research Dept., U.S.BEA.

EMPLOYMENT IN BOSTON (SUFFOLK COUNTY) BY MAJOR INDUSTRY

	1976	1977	1978	1979 a	1980 b
Fishing and Horticulture	840	681	610	621	869
Construction	9,567	8,842	9,486	10,291	11,887
Manufacturing	56,495	57,226	56,381	57,254	56,694
Transportation, Communications & Public Utilities	35,114	34,921	34,343	35,847	38,373
Trade Wholesale Retail	93,099 32,863 60,236	92,265 32,521 59,744	90,168 29,282 60,886	92,298 30,116 62,182	92,805 31,686 61,119
Finance, Insurance, Real Estate	62,858	63,558	64,883	66,242	600,02
Services	163,851	166,497	178,198	186,589	193,182
Proprietors	10,989	11,289	11,778	11,965	12,353
Government	88,592	86,637	87,395	92,164	94,667
TOTAL	521,402	521,896	533,242	553,271	570,667

1979 based on annual employment reports from Mass. Division of Employment Security. 1980 estimated on the basis of change over the 12 month period, first quarter 1979 to first quarter 1980, as reported by the Mass. Division of Employment Security.

Boston Redevelopment Authority Research Department based on U.S. Bureau of Economic Analysis Employment Series for Suffolk County. ource:

III. INVESTMENT UNDERWAY AND PLANNED IN BOSTON

The prospects and potential of the economy of the City and its contribution to the State are outstanding, but are sensitive to the outlook for growth in private investment, jobs and income in Boston. And this outlook is closely related to City public capital construction. More than \$8 billion of public and private investment is underway, planned and proposed. See Table 5. Of this, \$5 billion is actually underway and planned, and includes five million square feet of new office space and 5,000 hotel rooms. See Table 6. This investment will generate 84,000 man-years of construction work and 44,000 permanent jobs. Major mixed use development projects underway and planned include those of the Charlestown Navy Yard, Copley Place,

The role of City public capital construction in investment underway and planned is small in relation to that of the private sector, and the State and Federal government. See Table 7. Overall City public capital construction requirements make up \$340 million, seven percent of total planned investment, representing a leveraging ratio of fifteen to one. The nature of the development projects and their costs differ widely, but they all have one feature in common. The cost composition of the development projects show, in differing degrees, the role of a small share of City public improvements facilitating a larger portion of Federal and State investment, and the combined public sector leveraging a larger level of private sector investment. An illustrative sample of major development project costs and their private and public sector components are shown in Tables 8 through 13. The capital construction freeze in Boston places all of these projects in jeopardy.

Both the State and the City would lose in terms of jobs foregone and tax revenue untapped, if the capital construction freeze were to continue for some time, but the State would be the larger loser. Of the 44,000 permanent jobs and 84,000 man-years of construction work foregone, the City would lose half if it were to succeed in its goal of capturing one out of every two new jobs for resident workers, in comparison with the present overall ratio of four to ten. But in terms of tax revenue yield of the new investment, the State would lose annually an estimated \$72 million to the City's loss of \$35 million, in the absence of the \$5.8 billion of development projects underway and planned. The State would also lose construction phase revenue of \$119 million.

Total Investment

DEVELOPMENT PROJECTS UNDERWAY, PLANNED, OR PROPOSED (MILLIONS OF DOLLARS)

(\$3,479)	868	174	932	860	323	128	304	164	168	(244)	186	2,743	1,350	340	176		320	484	\$ 8,230
Major Mixed Use*	Office	Retail	Hotel	Housing	Medical	Educational	Cultural	Industrial	Private TCPU**	Parking Garages*	Other Private	Transportation	Other Public	City	Local and Metro	Region Authorities	State	Federal	TOTAL

Source: Boston Redevelopment Authority, Planning for Boston's Next Decade of Development, 1980-90 (Draft report)

^{*} Tallied on Specific Project Sector Lines ** Transportation, Communications, and Public Utilities

Table 6

DEVELOPMENT PROJECTS UNDERWAY AND PLANNED IN BOSTON

		Development Cost (Millions)	Unit of	Construction Jobs (Man Years)	Permanent Jobs
I.	Office Buildings	\$450	5,000,000 sq.ft.	10,125	20,000
II.	Hotels	400	5,000 rooms	9,000	3,330
III.	Retail	88	1,100,000 sq.ft.	1,700	3,143
IV.	Industrial*	151	3,026,000 sq.ft.	1,684	8,646
v.	Housing	218	3,651 housing	3,275	50
VI.	Medical	275	units 1,188,000 sq.ft.	3,960	3,015
VII.	Higher Education	112	-	1,620	4,590
VIII.	Cultural Facilities	179	-	3,157	1,790
IX.	Public Transportation	2,680	-	33,761	-
х.	Other Private	217	-	2,732	-
XI.	Other Public	1,059	-	13,346	-
	TOTAL	% 5 , 829	10,314,000 sq.ft. 5,000 rooms 3,651 housing uni		44,564

^{*} New and Renovation/Conversions.

Source: Boston Redevelopment Authority, Planning for Boston's Next

Decade of Development, 1980-90 (Draft report)

SUMMARY OF PUBLIC INVESTMENT UNDERWAY AND PLANNED, BY GOVERNMENT SECTOR* (Millions of Dollars)

<u>City</u>			
Basic Infrastructure* Facilities Other Public Improvements	\$147 123 70		
Total			\$340
Local and Metro Region Authorities			
Basic Infrastructure*			
Piers, Waterfront, Airport	\$ 40 10	Massport MBTA	
Park Water and Sewer Improvements	40	MDC	
Park	2	MDC	
Water and Sewer Improvements	10	BWSC	
Sub-Total	\$102		
Facilities	¢ 21	MDC	
New Franklin Park Zoo	\$ 21	MDC	
			\$123
a			
<u>State</u>			
Basic Infrastructure*			
State share of MDC projects	\$60 15		
State share of BWSC projects Park	2		
Palk			
Sub-Total	\$77		
Facilities			
State Transportation Building	\$70		
State Archives	12		
Hynes Auditorium Expansion &	40		
Boston Pine Street Inn	2		
FINE Street 1mm			
Sub-Total	\$184		\$201

Table 7 (cont'd)

Federal

Federal share of BWSC projects Federal share of BWSC projects	\$147 66	
Sub-Total	\$327	
Facilities Federal Office Building Tufts Nutrition Center	\$ 91 	
Sub-Total	\$182	
Total		\$395
Grand Total		\$1,059

Source: Boston Redevelopment Authority, Planning for Boston's Next

Decade of Development, 1980-90 (Draft report)

^{*} Does not include basic transportation infrastructure.

PARK PLAZA DEVELOPMENT COSTS

Private Investment

515,000 square feet Office 115,000 Retail 235,000 Hotel 300,000 Housing

1,165,000 square feet

1,167 spaces Parking

TOTAL PRIVATE DEVELOPMENT COST

\$120,000,000

Public Investment Required

\$ 6,800,000 City State 70,000,000 State Office Building Urban Systems Funding 8,480,000 80% State Share of Federal Urban Systems Funding

TOTAL PUBLIC INVESTMENT

\$ 87,400,000

Private to Public Ratio: 1.4 to 1

SOURCE:

Boston Redevelopment Authority, Planning for Boston's Next

Decade of Development, 1980-90 (Draft Report)

SOUTH STATION DEVELOPMENT COSTS

Private Investment

Office \$ 30 M Hotel 45

TOTAL PRIVATE INVESTMENT

\$ 75 M

Public Capital Required

\$ 60 M Federal & MBTA City

TOTAL PUBLIC INVESTMENT

\$ 75 M

Private to Public Ratio: 1 to 1

Source: Boston Redevelopment Authority, <u>Planning for Boston's</u>
Next Decade of Development, 1980-90 (Draft Report)

LAFAYETTE PLACE DEVELOPMENT COSTS

Private Investment

Retail \$ 35 M Hotel 35

TOTAL PRIVATE INVESTMENT

\$ 70 M

Public Capital Required

Garage \$ 24 M \$8M UDAG/\$16M City Bonds
Other Improvements 9 BRA

TOTAL PUBLIC INVESTMENT

\$ 33 M

Private to Public Ratio: 2.1 to 1

Source: Boston Redevelopment Authority, Planning for Boston's Next Decade of Development, 1980-90 (Draft Report)

Table 11

CHARLESTOWN NAVY YARD DEVELOPMENT COSTS

Private Investment

Office	\$ 45 M	750,000 square feet	
Retail	7. 5	150,000 square feet	
Hotel .		500 rooms	
Housing	150	1,200 units	
Marina		500 slips	
		· ·	
TOTAL PRIVATE INVESTMENT		\$20	02 5 M

Public Capital Investment Required

Shipyard Park	\$ 3.6 M	BOR/UDAG
Site Improvements	9.9	EDA/UDAG/LPW
Seawall Improvements	4.5	EDA or UDAG
Parking (600 spaces)	2.7	EDA or UDAG

TOTAL PUBLIC INVESTMENT

\$ 20.7 M

Private to Public Ratio: 9.8 to 1

Source: Boston Redevelopment Authority, Planning for Boston's Next

Decade of Development, 1980-90, (Draft Report)

Table 12

COPLEY PLACE DEVELOPMENT COSTS

Private Investment	\$ 277,571,000
With Specialty Store	
Without Specialty Store	\$ 278,295,000

Public Investment UDAG

Ramp Relocations	\$ 1,503,000
Temporary Traffic Rerouting	786,000
Relocation of Water Main	506,000
Street Modifications	2,207,000
Huntington Pedestrian Bridge	620,000
Landscaping	623,000
Parking Garage (Public Share)	6,015,000
Ventilation (Public Share)	3,400,000
Lighting	150,000
Public Mall Entry over Turnpike	1,635,000
Architect & Engineering Fees	700,000

TOTAL PUBLIC INVESTMENT \$ 18,145,000

Private to Public Ratio: 15.3 to 1

Source: Boston Redevelopment Authority, Planning for Boston's Next Decade of Development, 1980-90 (Draft Report)

THEATRE DISTRICT DEVELOPMENT COSTS

Private Investment

Human Nutrition Center T.N.E.M.C.	\$ 20,000,000
Boston Opera Company	6,500,000
Metropolitan Center	3,500,000
Paramount Theater	1,500,000
Wilbur Theater/Piaf's	1,750,000
Boylston Building	3,000,000
Parcel C-4 Hotel	40,000,000
Department Store-Lafayette Plac	e 40,000,000
600,000 square foot State Transportation Building	20,000,000
Other	16,000,000

TOTAL PRIVATE INVESTMENT

\$152,250,000

Public Capital Investment Required

Washington, Tremont, Stuart Streets Public Improvements	\$ 3,000,000
Technical Assistance	200,000
Planning	·
Marketing	
Administrative	
Revolving Loan	2,400,000
Urban Systems	1,500,000
Other	29,000,000

TOTAL PUBLIC INVESTMENT

\$ 36,100,000

Source: Boston Redevelopment Authority, Planning for Boston's Next Decade of Development, 1980-90 (Draft report)

IV. PROJECTED TAX YIELD TO BOSTON AND THE STATE FROM DEVELOPMENT PROJECTS UNDERWAY AND PLANNED

The tax yield of development projects underway and planned in Boston will be extraordinary for the State, and important to the City. When completed, over the next two, three, four and five years, these development projects will provide an estimated annual tax return to the State of \$72.5 million, and a construction phase tax yield of \$119 million. See Table 14. The annual tax return to the City, confined to the property tax or payments-in-lieu-of property taxes, would be \$35.4 million. These tax yields would be foregone if Boston's capital construction freeze were to continue in the absence of an assured revenue base adequate to service the long-term bond financing of the public capital construction. Detailed information on the estimated tax yield to the State and the City for each major type of development, and by each principal type of tax, is presented in the following pages. Special analyses are also presented for three major multi-use projects, Copley Place, Charlestown Navy Yard, and Lafayette Place.

As noted above, the State would garner the lion's share of the revenue yield, with annual tax returns of \$34.8 million in individual income tax payments, \$17 million in corporate income tax payments, \$10 million in sale taxes, \$5.5 million in hotel occupancy taxes, \$4.7 million in meals taxes, and \$351 thousand in the State property excise. Office construction would make up 49% of the total return followed by 21% for hotel operation, ll% for industrial development, 8% for retail facilities, 5% for housing, and 6% for other. The City's return of \$35.4 million would flow principally from property taxes or payments in-lieu-of property taxes.

Illustrative analyses of the projected tax yields from major multiuse development projects, prepared principally as part of Environmental Impact Statements, indicate the nature of the tax revenue benefit and the City and State participation. The Copley Place development project, with private investment of \$278 million underway, for example, will give the State an annual tax return of \$14 million, upon completion, and a construction phase revenue of \$8 million, while the yield to the City in-lieu-of property tax payments is set at \$8 million. See Table 15. The State will receive \$5 million annually in individual income tax payments, \$4 million in retail sales taxes, \$2 million in hotel occupancy taxes, \$1.5 million in food and beverage taxes, and \$1.6 million in corporate income taxes. The Charlestown Navy Yard, with private investment of \$202 million underway and planned, has a projected annual tax yield to the State of \$4.6 million, a construction phase return to the State of \$3 million, and annual in-lieu-of tax payments to the City of \$3 million. See Table 16. The Lafayette Place project involves \$70 million of private investment underway, and will yield \$3 million annually to the State, \$2 million during the construction phase, and \$3.6 million annually to the City. See Table 17.

Office development underway and planned in Boston would generate the major share of the new tax revenue flowing from the economic growth that Boston could experience if the public capital construction freeze could be thawed by the creation of new revenue sources for the City. Office development would give the City an annual net new yield of \$20 million of property taxes or payments in-lieu-of taxes. See Table 18. The State

would benefit from an annual return of \$33 million in individual and corporate income, sales and property excise taxes, and a construction phase yield of \$12 million.

Hotel development would signify an annual tax revenue of \$5 million to the City and \$17 million to the State. See Table 19. The construction phase return to the State would be \$11 million.

Retail trade would give the City almost \$1 million in tax revenue annually, and the State almost \$8 million. See Table 20. The State would also gain a construction phase tax return of more than \$2 million. Industrial development would contribute \$4.5 million annually to the City and \$7.7 million each year to the State when construction underway and planned in Boston is completed. See Table 21. The construction phase revenue to the State would be \$4 million.

Housing and construction for medical, higher education, and cultural facilities underway and planned in Boston would also mean significant revenues for the City and the State. See Tables 22 and 23.

In sum, the freeze on Boston's capital construction, if continued for any significant period of time, in the absence of a revenue base that could service long-term financing, would deny the City and the State the jobs and revenue that are critical to the well-being of the people and the economy.

SUMMARY:
TAX YIELD FROM DEVELOPMENT PROJECTS UNDERWAY AND PLANNED

Development Sector	Annual Tax Return	Return during Construction (Total-All Years)	
Office	\$ 53,237,875	\$ 11,950,313	
Hotel	22,439,181	10,657,500	
Retail	8,583,615	2,336,950	
Industrial	12,278,237	4,017,961	
Housing	4,955,662	5,817,412	
All Other	6,426,180	84,057,295	
Total	\$107,920,750	\$118,837,431	
Type of Tax	Annual Tax Return	Return during Construction (Total-All Years)	Revenue Receiver
Property Tax	\$ 35,444,989	-	City
Income Tax	34,817,101	\$ 75,746,340	State
Sales Tax	10,097,379	43,091,091	State
Hotel Tax	5,518,634	-	State
Meals Tax	4,705,267	-	State
Corporate Tax	16,986,380	-	State
Property Excise Tax	351,000	-	State
Total	\$107,920,750	\$118,837,431	-

Source: See Tables 15 through 23.

COPLEY PLACE:
PROJECTED ANNUAL TAX YIELD TO CITY AND STATE

During Construction Upon Revenue Benefits Phase Completion Receiver Employment 650 6,2867 40% City Average Wage \$22,000 \$19,000 60% Metro Payroll \$14,300,000 \$119,400,000) Income Tax \$614,900 \$5,134,200 State Total Corporate :\$16,500,000 Income (Taxable Metro Return) Region Total Retail Sales \$79,000,000 Hotel Sales (Room & Restaurant) \$38,394,000 Retail Sales Tax \$3,967,450 State Hotel Tax \$2,188,500 State Food & Beverage Tax \$1,548,800 State Business/Corp. Tax \$1,567,500 \$967,188 State Property Tax (est.) \$8,000,000 City Direct Income or Private or Other Tax Total State Return \$1,582,088/yr. \$14,406,450/yr. upon completion 5 yrs. Total City Return \$8,000,000/yr. upon completion

Source: BRA Research Department, April 1981 (Copley E.I.S.).

Table 16

CHARLESTOWN NAVY YARD:
PROJECTED ANNUAL ECONOMIC RETURN TO CITY AND STATE

Benefits	During Construction Phase (8 yrs.)	Upon Completion	Revenue Receiver
Employment Average Wage Payroll	300 \$22,000 \$6,600,000	4,450 \$16,000 \$71,200,000	40% City
Income Tax	\$264,000	\$2,848,000	State
Total Corp. Income (Taxable Return) Total Retail Sales Hotel Sales	- - -	\$11,000,000	Metro Region
Retail Sales Tax	-	\$506,250	State
Hotel Tax	-	- -	-
Food & Beverage Tax	-	\$157,950	State
Business/Corp. Tax	\$112,000	\$1,045,000	State
Property Tax (est.)	-	\$3,000,000	City
Direct Income or Other Tax	-	-	-
Total State Return	\$376,000/yr.	\$4,557,200/yr. upo	on completion
Total City Return	8 yrs.	\$3,000,000/yr. upo	on completion

Source: BRA Research Department, April 1981.

Table 17

LAFAYETTE PLACE:
PROJECTED ANNUAL ECONOMIC RETURN TO CITY AND STATE

Benefits	During Construction Phase (3 yr.)	Upon Completion	Revenue Receiver
Employment Average Wage Payroll	366 \$22,000 \$8,050,000	1,141 9,560 \$10,907,960	40% City 60% State
Income Tax Total Corp. Income	\$322 , 000 -	\$436,318 \$13,780,000	State
(Taxable Return) Total Retail Sales Hotel Sales (Room & Restaurant)	-	\$35,100,000 \$10,562,500	Metro Region
Retail Sales Tax	-	\$780,000	State
Hotel Tax	-	\$481,000	State
Food & Beverage Tax	-	\$858,000	State
Business/Corp. Tax	\$282,8000	\$312,000	State
Property Tax (est.)	-	\$1,300,000	City
Direct Income or Other Tax (City Garage)	-	\$2,340,000	City
Total State Return	\$604,800/yr. 3 yrs.	\$2,867,318/yr.	upon completion
Total City Return	-	\$3,640,000/yr.	upon completion

Source: BRA Research Department, April 1981 (updated from 1978 E.I.S.)

TAX YIELD: OFFICE DEVELOPMENT UNDERWAY AND PLANNED

I. Annual Tax Yield to Boston and the State

Completed Project

Boston	\$20,187,500	Property Tax or Payment in-lieu-of Taxes
State	\$18,275,000 780,000 351,000 2,137,500 11,506,875 \$33,050,375	Individual Income Tax Sales, Tax, Employees State Property Excise Corporate Income Tax-Owner Corporate Income Tax-Tenants Total Annual State Revenue

Construction Phase

State	\$7,619,063 4,331,250	Construction Including Tax Construction Sales Tax
	\$11,950,313	Construction Phase State Reven

II. Office Development Tax Yield--Derivation

City - Payment in-lieu-of Taxes

5,000,000 Sq.ft. \$ 20 / Sq.ft. \$100,000,000 .85 Efficiency \$85,000,000 Gross Rent .95 Less 5% Vacant \$80,750,000 Net Rent .25 Tax Rate \$20,187,500 City Yield

State - Individual Income Tax

5,000,000	Sq. Ft.
÷ 250	Sq. Ft./Worker
20,000	Workers
× \$17,000	Average Salary
\$340,000,000	Payroll
.05375	Tax Rate
\$18,275,000	Individual Income Tax

State - Individual Sales Tax

20,000	Workers
260	Work Days
5,200,000	Worker Days
\$3	Spending
\$15,600,000	Worker Spending
.05	Sales Tax
\$780,000	Sales Tax Workers

Construction Income Tax

5,000,000	Sq. Ft.
\$90 /	Sq. Ft. Development Cost
.70	Percent Construction Cost
\$315,000,000	Construction Cost
.45	Labor Rate
\$141,750,000	Labor Cost-Payroll
.05375	Tax Rate
\$7,619,063	Construction Including Tax

Construction Sales Tax

\$315,000,000	Construction Cost
.55	Materials
\$173,250,000	Materials
.50	Purchased in Massachusetts
\$86,625,000	Massachusetts Materials
.05	Tax Rate
\$4,331,250	Construction Sales Tax

State Property Excise Tax

\$315,	000,000	Construction Cost
	.70	Construction Cost as % of Development Cost
\$450,	000,000	Development Cost-Value
	.30	Assessment
\$135,	000,000	Total Assessed Value
	.0026	Tax Rate
\$	351,000	State Property Excise

Corporate Income Tax-Owner

\$450,000,000	Total Value
.25	Equity Rate
\$112,500,000	Equity
.20	Return on Income Rate
\$22,500,000	Return on Income
.095	Corporate Income Tax Rate
\$2,137,500	Corporate Income Tax-Owner

Table 18 (cont'd)

State - Corporate Income Tax-Tenants

5,000,000 Sq. Ft.
\$20 Rent/Sq.Ft.
\$100,000,000 Rent
.85 Efficiency
\$85,000,000 Gross Rent
.95 Occupied
\$80,750,000 Net Rent
.20 Rent as 20% Income
\$403,750,000 Income
.30 Net Taxable Income
\$121,130,000 Taxable Income
.095 Tax Rate
\$11,506,875 Corporate Income Tax-Tenants

Source: Boston Redevelopment Authority, Research Department

TAX YIELD: HOTEL DEVELOPMENT, UNDERWAY AND PLANNED

I. Annual Tax Yield to Boston and the State

Completed Project

Boston	\$4,919,227	Payment in-lieu-of Taxes
State	\$5,518,634 2,589,067 1,789,875 2,660,000 4,962,378	Room Tax Meals Tax Income Tax Corporate Tax Guest Sales Tax
	\$17,519,954	Total Annual State Revenue
Construction Phase		
State	\$6,772,500 3,885,000	Construction Income Tax Construction Sales Tax

Construction Phase State Reve

II. Hotel Development Tax Yield - Derivation

City - Payment in-lieu-of Taxes

5,000	Rooms
\$70	Average Room Rate
.76	Occupancy Rate
365	Days
\$97,090,000	Room Revenue
\$51,781,335	Food and Beverage Revenue
\$148,871,335	Total Revenue
\$3,883,600	4% Rooms
1,035,627	2% Food and Beverage
¢4 010 007	Proved Gibra Vield 1005
\$4,919,227	Annual City Yield 1985

\$10,657,500

State - Room Tax

5,000	Rooms
\$97,090,000	Room Sales
.057	Hotel Occupancy Tax
\$ 5,518,634	Room Tax Yield

State - Income Tax

5,000 Rooms
1.5 Rooms per worker
3,330 Employees
\$10,000 Average Annual Salary
\$33,300,000 Payroll
.05375 Income Tax Rate
\$1,789,875 Annual Income Tax Yield

Meals Tax

5,000 Rooms \$51,781,335 Food and Beverage Sales .05 Meals Tax \$2,589,067 Meals Tax Yield

Construction Employees Income Tax

5,000 Rooms
\$80,000 Per Room Development Cost
.70 Percent Construction Cost
\$280,000,000 Total Building Cost
.45 Percent Labor Cost
\$126,000,000 Construction Payroll
.05375 State Income Tax
\$6,772,500 Construction Income Tax

Construction Materials Tax

Corporate Income Tax

\$280,000,000 Construction Cost .60 Construction Percent Development \$400,000,000 Development Cost .40 Percent Equity \$186,666,667 Equity .15 Percent Return on Income \$28,000,000 Net Corporate Income .095 Corporate Income Tax Rate \$ 2,660,000 Corporate Income Tax

Guests Purchases, Sales Tax

Room Sales \$97,090,000 \$51,781,355 Food and Beverage Sales \$148,871,335 Guest Room and Food Sales .60 Food and Room as % Total Sales \$248,118,888 Total Purchases - 148,871,335 Less Food and Room \$99,247,553 Other Guest Sales .05 Sales Tax Rate ¢ 1 962 378 Caled Tay Revenue. Guests

TAX YIELD: RETAIL DEVELOPMENT UNDERWAY AND PLANNED

I. Annual Tax Yield to Boston and State

Completed Project

Boston	\$877,800	Payment in-lieu-of Taxes
State	\$1,689,363 122,577	Individual Income Tax Sales Tax, Employees
	3,526,875 2,116,200 250,800	Sales Tax Meals Tax Corporate Tax
	\$7,705,815	Total Annual State Revenue

Construction Phase

State	\$1,489,950	Construction Including Tax
	847,000	Construction Sales Tax
	\$2,336,950	Construction Phase State Revenue

II. Retail Development Tax Yield - Derivation

City - Payment in-lieu-of Taxes

1,100,000	Sq. rt.
\$3	Rent/Sq. Ft.
\$3,300,000	Rent
.95	Less 5% Vacant
\$3,135,000	Net Rent
28	City Return as % of Gross Rent
\$877,800	City Yield

State - Individual Income Tax

1,100,000	Sq. Ft.
÷ 350	Sq. Ft./Employee
3,143	Employees
× \$10,000	Average Salary
\$31,430,000	Retail Payroll
.05375	Tax Rate
\$ 1,689,363	Individual Income Tax

Individual Sales Tax

3,143	Employees
260 .	Work Days
817,810	Worker Days
\$3	Spending per Day
\$2,451,540	Worker Spending
, 05	Sales Tax
\$122,577	Sales Tax, Workers

Table 20 (cont'd)

State - Sales Tax

1,100,000	Sq. Ft. Less 5% Vacant

1,045,000	Rented Retail Space
\$135	Sales per Sq. Ft.
\$141,080,000	Retail Sales Volume
.50	Less Food, Clothing, Meals
\$70,537,500	Taxable Sales
.05	Sales Tax Rate
\$ 3,526,875	Sales Tax

Meals Tax

\$141,080,000	Retail Sales Volume
.25	Percent Meals
\$35,270,000	Meals Sales
.06	Meals Tax Rate
\$ 2.116.200	Meals Tax

Construction Income Tax

\$1,100,000	Sq. Ft.
\$80	Per Sq. Ft. Development Cost
\$88,000,000	Development Cost
.70	Percent Construction Cost
\$61,600,000	Construction Cost
.45	Labor Rate
\$27,720,000	Labor Cost-Payroll
.05375	Income Tax Rate
\$ 1,489,950	Construction Income Tax

Construction Sales Tax

\$61,600,000	Construction Cost
.55	Materials, Percent
\$33,880,000	Materials
.50	Massachusetts Purchase Rate
\$16,940,000	Massachusetts Sales
.05	Tax Rate
\$ 847,000	Construction Sales Tax

Corporate Income Tax

\$88,000,000	Total Value of Development
.20	Equity Rate 20%
\$17,600,000	Equity
.15	Return on Equity 15%
\$2,640,000	Gross Income Return
.095	Corporate Income Tax Rate
\$250,800	Corporate Income Tax

TAX YIELD: INDUSTRIAL DEVELOPMENT UNDERWAY AND PLANNED

I. Annual Tax Rate to Boston and the State

Completed Project

Boston	\$4,539,000	Payment in-lieu-of Taxes
State	6,970,838 337,194 431,205 \$7,739,237	Individual Income Tax Sales Tax, Employees Corporate Tax Total Annual State Revenue

Construction Phase

State	\$2,561,698	Construction Income Tax
	1,456,263	Construction Sales Tax
	\$4,017,961	Construction Phase State Revenue

II. Industrial Development Tax Yield-Derivation

City - Payment in-lieu-of Taxes

3,026,000	Sq.	Ft.			
\$1.50	Tax	Return	per	Sq.	Ft.
\$4,539,000	City	Tax Y	ield		

State - Individual Income Tax

3,026,000	Sq. Ft.
350	Average Sq. Ft./Worker
8,646	Employees
\$15,000	Average Salary
\$129,690,000	Payroll
.05375	State Income Tax Rate
\$6,970,838	Individual Income Tax

Individual Sales Tax

8,646	Employees
260	Work Days
2,247,960	Worker Days
. \$3	Average Spending per Day
\$6,743,880	Worker Spending per Year
.05	Sales Tax Rate
\$337,194	Sales Tax Return

Table 21 (cont'd)

State - Construction Income Tax

3,026,000	Sq. Ft.
\$50	Per Sq. Ft. Development Cost
\$151,300,000	Development Cost
.70	Percent Construction
\$105,910,000	Construction Cost
.45	Percent Construction Labor
\$47,659,500	Construction Labor Cost
.05375	Income Tax Rate
\$2,561,698	Construction Income Cost

Construction Sales Tax

\$105,910,000	Construction Cost
.55	Percent Materials
\$58,250,000	Materials Cost
.50	Massachusetts % of Purchases
\$29,125,250	Massachusetts Purchases
05	Tax Rate
\$ 1,456,263	Construction Sales Tax

Corporate Tax

\$151,300,000	Development Cost
.20	Equity Rate
\$30,260,000	Equity
.15	Return on Equity
\$ 4,539,000	Gross Income
.095	Corporate Income Tax Rate
\$431,205	Corporate Income Tax

Source: Boston Redevelopment Authority Research Department.

TAX YIELD: HOUSING DEVELOPMENT UNDERWAY AND PLANNED

\$1,372,582

I. Annual Tax Yield to Boston and State

Completed Project

Boston

	3,548,880	Payment in-lieu-of Taxes
	\$4,921,462	Total Annual City Revenue
<u>State</u>	\$32,250 	Income Tax Sales Tax
	\$34,200	Total Annual State Revenue
Construction Phase		
State	\$3,708,959 2,108,453	Income Tax Sales Tax

Property Tax (Condos)

Construction Phase State Revenue

II. Housing Development Tax Yield - Derivation

City - Property Tax or Payment in lieu of Taxes

A. Condominiums @ 10% of New Units

365	Units
\$60,000	Development Cost per Unit
\$21,900,000	Development Cost
.23	Assessment
\$5,037,000	Assessed Value
272.50	Property Tax Rate/\$1,000 Value
\$1,372,582	Condo Property Tax

\$5,817,412

B. Section 8 and Market Rate Rental at 80% and 10% of New Units

	3,286	Units
	\$60,000	Cost per Unit
-	\$197,160,000	Development Cost
	.15	Return
	\$29,574,000	Effective Gross Income
	.12	P.I.L.O.T. (121A) Agreement
	\$ 3,548,880	Payment in-lieu-of Taxes

Table 22 (cont'd)

State - Individual Income Tax, Permanent Workers

50	Employees
\$12,000	Average Wage/yr.
\$600,000	Payroll
.05375	State Income Tax Rate
\$32,250	Income Tax

Individual Sales Tax

50	Employees
260	Annual Work Days
13,000	Worker Days
\$3	Daily Expenditures
\$39,000	Yearly Sales
.05	Sales Tax Rate
\$ 1,950	Sales Tax

Construction Income Tax

\$153,342,000	Construction Cost
.45	Percent Labor
\$69,003,900	Payroll
05375	Income Tax Rate
\$3,708,959	Income Tax

Construction Sales Tax

\$153,342,000	Construction Cost
.55	Percent Materials
\$84,338,100	Materials Cost
.50	Massachusetts % Materials
\$42,169,050	Massachusetts Materials
.05	Sales Tax Rate
\$2,108,453	Sales Tax

Source: Boston Redevelopment Authority Research Department

TAX YIELD: OTHER DEVELOPMENT UNDERWAY AND PLANNED

Annual Tax Yield to Boston and the State

Completed Project

0 Boston \$6,059,775 Income Tax State 366,405 Sales Tax \$6,426,180 Total Annual State Revenue

Construction Phase

\$53,594,170 State Income Tax \$30,463,125 Sales Tax \$84,057,295 Construction Phase State Revenue

II. Other Development Tax Yield - Derivation

State - Individual Income Tax

9,395 Jobs, Permanent 2,000 Average Annual Wage \$12,000 \$112,740,000 Payroll .05375 State Income Tax Rate \$6,059,775 Income Tax

Individual Sales Tax

9,395 Jobs Annual Work Days
Worker Days 2,442,700 Average Daily Sales \$3 \$7,328,100 Annual Sales Sales Tax Rate .05 \$366,405 Sales Tax

Construction Income Tax

\$3,165,000,000	Development Cost
.70	Percent Construction
\$2,215,500,000	Construction Cost
.45	Percent Labor
\$997,101,000	Payroll
.05375	Income Tax Rate
\$53,594,170	Income Tax

Table 23 (cont'd)

State - Construction Sales Tax

\$2,215,000,000	Construction Cost
.55	Percent Materials
\$1,218,525,000	Total Materials
.50	50% Massachusetts Purchases
\$609,262,500	Massachusetts Materials
.05	Sales Tax Rate
\$30,463,125	Sales Tax

Source: Boston Redevelopment Authority Research Department







